Comments on the Draft Chesapeake Bay Total Maximum Daily Load (TMDL)

Submitted By

The Delaware County Board of Supervisors

Dated

November 8, 2010

Background

While The Delaware County Board of Supervisors has been a partner in the restoration of Chesapeake Bay since 2000, we have grave concerns with the Draft Total Maximum Daily Load for Nitrogen (N), Phosphorus (P), and sediment issued by USEPA. These concerns are summarized in Board of Supervisors Resolution No. 193, adopted on the 27th of October 2010 and attached as Appendix "A". What follows expands on the concerns articulated in Resolution No. 193.

Delaware County is quite familiar with the stewardship of water quality for downstream users. Slightly over 50% our lands are within the upper Delaware River basin, which is part of New York City's drinking water supply watershed (NYC Watershed). Land use in the NYC Watershed is controlled by a strict set of regulations designed to avoid the need for filtering NYC's water supply, established by the Watershed Memorandum of Agreement of 1997. EPA is a signatory to this agreement. Delaware County immediately recognized the need to create ownership of the NYC Watershed regulations at the local level in order for them to be effective. In an effort to help our communities understand of the importance of water quality protection and its importance to economic vitality, we created the Delaware County Action Plan (DCAP). Finished in 1999, this document and its development established a locally led, multi-agency watershed program that brings sound science to bear on water quality protection throughout the entire county, not just in the NYC watershed, and assists Delaware County's farmers, businesses, and communities in meeting water quality goals while enhancing economic vitality. DCAP and projects under its umbrella are consistent with and complementary to the goals of the Chesapeake Bay Program and the TMDL. Not coincidentally, the year after DCAP was adopted by the Delaware County Board of Supervisors, they also passed a resolution in support of the Chesapeake Bay Program and its efforts to improve water quality in the Bay. Since that time, DCAP and other water quality efforts in Delaware County have succeeded in reducing contributions of N, P, and sediment to the both the Delaware and Susquehanna River systems. Given our experience with watershed management in the Delaware River basin, Delaware County has a unique perspective on the implications of this TMDL for farmers, businesses, and communities in New York. Our specific concerns are below.

TMDL models and monitoring

DCAP's monitoring and modeling efforts in the Cannonsville Reservoir Basin illuminate the challenges inherent in using models to allocate N & P contributions equitably. Massive amounts of data across spatial and temporal scales were required to create Cannonsville land use models. The monitoring program and the models were designed with the assistance of experts from Cornell University, the New York State Department of Environmental Conservation, NYC Department of Environmental Protection, Pennsylvania State University, USDA, State University of New York- Environmental Science and Forestry, the New York State Department Of Health, the Delaware County

Soil and Water Conservation District (DCSWCD), the Delaware County Planning Department, the Catskill Watershed Corporation (CWC) and the Watershed Agricultural Program (WAP), referred to as the Scientific Support Group (SSG). The Cannonsville program under the guidance of the SSG used 8 monitoring stations operated in conjuction with 20 locations where bi-weekly grab samples were collected from 1950 until the present day in a 455.12 square mile area to guide the development of land use models[1]. Members of the SSG have indicated that even this robust dataset is not completely reliable for predicting nutrient losses. Contrast this with the dataset that EPA is using to determine N and P allocations for New York: data collected over a 21 year period from just *one* monitoring station, to develop a model to predict nutrient losses from a variety of land uses, over a 6,262 square mile area! It is the position of DCAP and Delaware County that equitable N and P allocations based on reality are not possible given the poor quality of the dataset being used in the EPA Chesapeake TMDL model.

It is our understanding that EPA's model incorporated false assumptions that were only corrected when the Upper Susquehanna Coalition recognized the errors. This seems to indicate that there has not been sufficient outreach to regional and local stakeholders to understand conditions at a finer scale.

Population trends, pollution contributions and equity

It is important to note some important differences between the New York portion of the Chesapeake Bay watershed and the watershed as a whole. According to the Chesapeake Bay Program, 16.6 million people live in the Chesapeake Bay watershed, and this number increases by approximately 170,000 people per year.[2] In contrast, New York's Southern Tier has a stable or slightly declining population currently estimated at 629,767 residents or approximately 3.79% of total basin population. The Chesapeake Bay watershed covers roughly 64,000 square miles[3]. Around 6,262 square miles[4], or 9.78% of the basin's land mass, are New York State lands. Based on these statistics, population density the New York portion of the watershed, including Delaware County, has been in the neighborhood of 101 persons per square mile since 2000, the year we agreed to participate in the Chesapeake Bay Program. In contrast, tidal portions of the watershed have experienced significant growth over that same time period, to an average population density of 276 persons per square mile. With denser human populations, there is a corresponding increase of infrastructure and human waste, both of which increase N and P contributions to the Chesapeake Bay. This is reflected in changes in water quality over the same time frame. The Chesapeake Bay Program sought New York's cooperation in its efforts to restore the bay in 2000. Since that time, N and P contributions from New York State, recorded at the Towanda monitoring station, have dropped 2.44 million pounds and .08 million pounds per year respectively. During that same time, a number of monitoring

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[1] Watershed Modeling of the Cannonsville Basin using SWAT 2000, Model Development, Calibration and Validation for the Prediction of Flow, Sediment and Phosphorus Transport to the Cannonsville Reservoir, February 2004

[2] Chesapeake Bay Facts & Figures at http://www.Chesapeakebay.net/factsandfigures.aspx

[3] Chesapeake Bay Facts & Figures at http://www.Chesapeakebay.net/factsandfigures.aspx

[4] Susquehanna River Basin Commission Sub-basin Information at http://www.srbc.net/subbasin.html

stations in tidal states reported increases in P and N contributions[5]. It is clear to us that differences in population and land use between the headwaters and tidal areas of the basin are in large part responsible for this. To our surprise and dismay, New York is being asked to accept disproportionately heavier restrictions than tidal states- the same states that grew in population, developed area, and pollution contributions while New York did the opposite! Much has been made of the importance of the Chesapeake Bay as an example for other large, complex watersheds such as the Mississippi. What kind of a message does this TMDL really send to states in those watersheds? From the outside, it must appear that the best way to avoid a larger share of the regulatory burden under a TMDL is to grow as fast as possible, in as irresponsible a manner as possible, as soon as you hear that a TMDL is imminent. If the Chesapeake Bay TMDL proceeds as written, you can be sure that other states, counties, and municipalities will take notice, and realize it is not in their best interest to be proactive in improving water quality the way that we were.

When pressed about the blatant inequities of this situation at the October 27th meeting of the Upper Susquehanna Coalition, EPA staff insisted that this was the only way to get tidal states to agree to the TMDL. **We reject the idea that headwaters communities deserve to be punished as a requirement of the Chesapeake Bay Program's success.** As we have experienced in our interactions with NYC, it is easy for regulatory agencies to place the burden of water quality protection headwaters communities with low population and low income, because their lack of resources makes it difficult for them to fight for a fair deal. Tidal states stand to gain the most from improving the health of the Bay. They ought to accept an equitable share of the responsibility for its cleanup.

Financial burden

NYC provides a significant amount of funding for compliance with its watershed rules and regulations through the Delaware County Soil and Water Conservation District (DCSWCD), the Catskill Watershed Corporation (CWC), and the Watershed Agricultural Program (WAP). Funding sources include the Delaware County Stream Corridor Management Program and the Catskill Streams Buffer Initiative out of DCSWCD, which work with landowners and municipalities to fund a wide variety of projects that have direct benefits to water quality; CWC's grant programs for stormwater and septic system retrofits; and WAC's sponsorship of whole farm planning and installation of best management practices for water quality on farms. These programs have been very successful at protecting water quality at little to no expense to landowners and communities. Note that none of this funding is available in the Susquehanna watershed.

Land use in Delaware County has changed dramatically within the last 50 years. Prior to 1950, 80% of our lands were cleared for farming and settlement, and 20% of the land was forest. Today, those statistics have flip-flopped, with approximately 81% of our lands in some kind of forest cover. A number of factors have contributed to this reforestation. First and foremost, farm-gate prices have not supported the smaller family farms. As

[5] Trends and Status of Flow, Nutrients, Sediments for the Selected Nontidal Sites in the Chesapeake Bay Watershed 1995-98

these farms went gone under, many of them were subdivided into 7-10 acre building lots. Little land was actually sold however, and huge swaths of land remained vacant, succeeding eventually into forest. Currently, about 17% of our lands are agricultural, down from 20% in 2002.[6] About 2% of our lands are in some kind of settlement. It is impossible to reduce N and P contributions in any meaningful way from forest lands. Given this fact, the geography of Delaware County means that the burden of achieving N and P reductions will fall in large part on our farmers, many of whom are already teetering on the brink of bankruptcy. The stagnant economy in Delaware County and New York State, coupled with low farm-gate milk prices (dairy is our main form of agriculture) will conspire with this TMDL to drive many of our farmers out of business.

In 1999, New York State adopted EPA's phase II storm water regulations which identified population centers, that were in excess of 100,000 persons, be required to incorporate Municipal Separate Storm Sewer Systems (MS-4) standards. In New York State, municipalities that have attempted to meet these standards recognize the high cost associated with implementing these standards. Given our experience with implementing storm water controls in the New York City watershed, the cost versus benefit for pollution control has proven to be very low. To require MS-4 technology throughout rural New York State will provide infinitesimal nutrient reduction while exhausting huge sums of public funding and creating an onerous regulatory threshold of compliance.

At the October 27th meeting with the Upper Susquehanna Coalition, EPA staff made vague references to "funding following the regulations" in the TMDL. Not only is there no commitment by EPA to consistent funding, this is compounded by the fact that any funding that does appear will more than likely go to other areas of the watershed. As we noted above, Delaware County has been committed to improving water quality for decades, and our work has resulted in water that is much cleaner than other jurisdictions. If the concentrations of N and P in our water are lower, then it stands to reason that their extraction will be more difficult, and consequently more expensive. Why would any funding entity spend money in Delaware County when the reductions achieved per dollar are much smaller here than other areas in the watershed? The funding will go where it is most effective, and unfortunately that is not anywhere in New York. We do not expect any meaningful financial support for compliance with the TMDL, although we sincerely hope we are proven wrong.

At the same October 27th meeting, EPA staff pointed out that 1500 watermen were currently out of work due to the pollution levels of the Chesapeake Bay. While Delaware County is sympathetic to the plight of individuals that rely on clean water for their livelihoods (as we do), we must insist on a better solution than trading the existence of our farmers for those of Chesapeake Bay watermen. The solution lies in a more equitable distribution of pollution allocations, to hold accountable tidal states that have not been as proactive in their water quality protection efforts as we have in Delaware County.

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[6] http://www.agcensus.usda.gov/Publications/2007/Online_Highlights/County_Profiles/New_York/cp36025.pdf

Recommendations

Model review:

1) Revisit the models used to determine N and P allocations and:
    a. Use the year 2000 as a baseline rather than 2009, and acknowledge the work that New York has done since we became partners in the Chesapeake Bay Program. The reductions in our N and P concentrations since that time should be counted towards achieving our reductions.
    b. Put the adoption of the TMDL on hold pending adequate outreach with New York stakeholders. There is a wealth of regional and local knowledge that could inform further model iterations.

Funding:

1) EPA needs to commit significant funding for communities and landowners to come into compliance with this TMDL.
    a. One suggestion might be that the taxpayers of Maryland, Virginia and Delaware (the direct beneficiary of a clean-up program) pool their resources and commit to a watershed program not unlike that of the City of New York.

Equity:

1) Revisit TMDL to hold tidal jurisdictions more accountable

Next steps/drill down:

1) involve local jurisdictions in TMDL planning
    a. Conduct targeted outreach in each county
    b. Explain clearly what the local obligations will be
    c. Provide technical support for achieving reduction targets

Funding

The Chesapeake Clean Water and Ecosystem Restoration Act of 2009[7] contain impressive numbers for allocations to aid jurisdictions to address water quality issues. Unfortunately, the numbers become inconsequential when compared to the upgrade cost of each community waste water treatment facility. The watershed has 483 significant waste water treatment facilities[8] . It would not be unreasonable to believe that at least ½ of these systems would require an upgrade upon the adoption of the TMDLs. Based on recent history when New York City upgraded smaller systems for a single nutrient as to attain a 2 mg. per liter phosphorus level[9], (which was underway almost 10 years ago and lower construction costs) the total cost for the upgrades could likely leave no money available for any farm programs necessary to address CAFO's. Delaware County demands that any future Bay clean-up initiative will be fully funded. In the New York City watershed, the residents of the watershed were required to implement an elevated watershed protection program. The program is almost fully funded by the rate payers of the City of New York.

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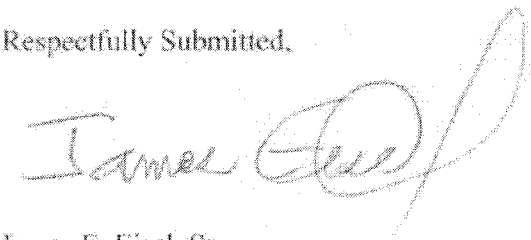
[7] S. 1816: Sponsored by Senators Cardin (MD), Carper (DE), Mulkolski (MD), Kaufman (DE). Placed on Senate legislative calendar

[8] Wastewater Treatment: www.chesapeakebay.net/wastewatertreatment.aspx

[9] NYC upgrade costs:
ingentaconnect.com/search/article?title=watershed+upgrade+program+title_type=tka&year

Respectfully Submitted,



James E. Eisel, Sr.
Chairman, Delaware County Board of Supervisors

CC: Senator Charles Schumer
Senator Kristen Gillibrand
Congressman Maurice Hinchey
Congressman Elect Christopher Gibson
Governor David Patterson
Governor Elect Andrew Cuomo
NYS Senator John Bonacic
NYS Assemblyman Clifford Crouch
Acting Commission Peter Iwanowicz
Assistant Commissioner James Tierney

Appendix A

RESOLUTION NO. 193

TITLE: OPPOSITION TO RECENTLY PROPOSED TOTAL MAXIMUM DAILY LOAD ALLOCATIONS FOR THE SUSQUEHANNA RIVER IN NEW YORK STATE WATERSHED AFFAIRS

WHEREAS, Delaware County supports the reasonable, cost effective and science-based protection of natural resources while protecting the economic integrity of the county; and

WHEREAS, Delaware County has demonstrated its commitment to protecting water quality by adopting (August 1999, Resolution No. 213) and implementing its Delaware County Action Plan county-wide; and

WHEREAS, even though Delaware County in partnership with other New York State counties have made significant improvements in water quality with regard to phosphorus, nitrogen, and sediment since the mid-1980's, it has been summarily dismissed by the Environmental Protection Agency (EPA) while other signatory states in the basin have increased their pollution footprint; and

WHEREAS, the New York State Department of Environmental Conservation (NYSDEC) provided reasonable and achievable thresholds for pollutant loading reductions from various sources for phosphorus, nitrogen and sediment through the Watershed Implementation Plan (WIP); and

WHEREAS, EPA has rejected the NYSDEC WIP as they believe it was significantly flawed; and

WHEREAS, EPA allocations would require all farms to meet Concentrated Animal Feeding Operations (CAFO) standards, a standard that would bankrupt most farms; and

WHEREAS, EPA allocations would require approximately 50% of the existing impervious surfaces (parking lots) to be retrofitted with stormwater best management practices, an exercise that would be detrimental to local businesses; and

WHEREAS, EPA allocations would require wastewater treatment facilities to upgrade nitrogen and phosphorus reduction strategies that would place an unaffordable tax burden on village taxpayers and result is businesses leaving the basin; and

WHEREAS, EPA allocations would dictate even the smallest population centers to be classified as an MS-4, a stormwater classification that would require those communities to spend millions of dollars to treat stormwater for a relatively small amount of nutrient reduction.

NOW, THEREFORE BE IT RESOLVED, the Delaware County Board of Supervisors strongly opposes this USEPA unfunded TMDL mandate which is untenable and economically destructive.

BE IT FURTHER RESOLVED, that this resolution be sent to all appropriate county, state and federally elected officials that have a represented interest in the Susquehanna River Basin, EPA Administrator Lisa Jackson, Regional Administrator Shawn M. Garvin from Region 3, Regional Administrator Judith A. Enck from Region 2 and NYSDEC Commissioner Acting Commissioner Peter Iwanowicz.

State of New York
County of Delaware

I, Christa M. Schafer, Clerk of the Board of Supervisors of Delaware County, do hereby certify that the above is a true and correct copy of a resolution adopted by said Board on the 27th day of October 2010 and the whole thereof.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of said Board at Delhi, New York, this 27th day of October 2010.

Christa M. Schafer
Clerk, Delaware County Board of Supervisors